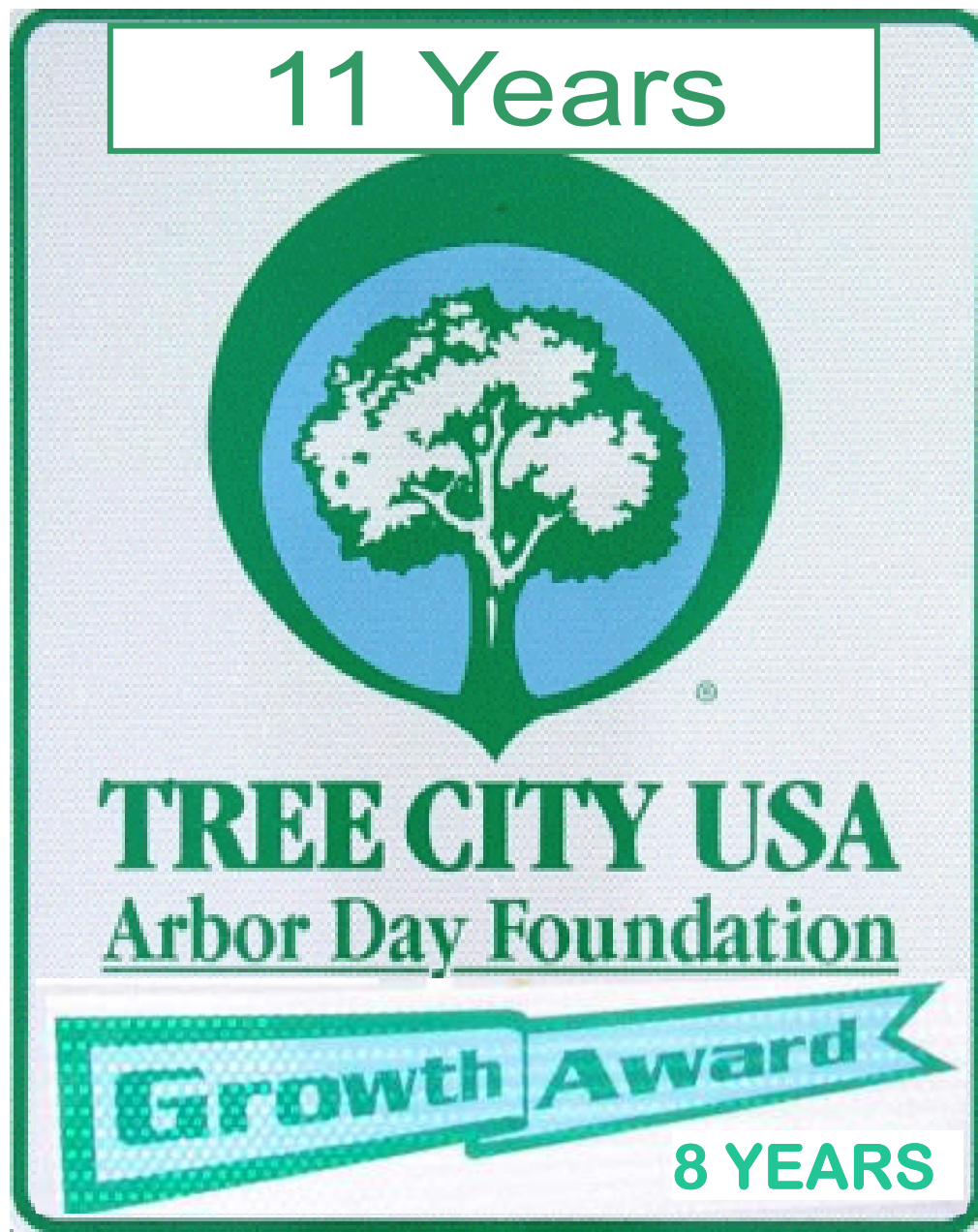


2010 Annual Report

Department of Urban Forestry & Evansville Tree Advisory Board



Introduction & History

The general goals of the Evansville Urban Forestry program are to improve the quality of life for Evansville residents through increasing the number of trees and improving tree health and longevity through improved public tree care, Arborist (tree pruner's) Licensing, and public education.

Specifically, trees benefit Evansville by:

- ✿ **Increasing property values** – If the right tree is planted in the right place, and if such trees are maintained properly, and in doing so can increase the city tax base. Property values can be increased by as much as 27% (Tree City USA Bulletin #28).
- ✿ **Lowering energy costs** – Trees can reduce utility bills through evapotranspiration and shading buildings in the summer, and reducing cold winds in the winter (10-12%*).
- ✿ **Intercepting rain water and lower soil erosion** – Trees intercept rain water before reaching the ground. This greatly reduces the amount of storm water that reaches public storm water facilities, therefore lowering storm water facility costs.
- ✿ **Reducing air and water pollution** – Trees reduce toxicities in our air and water through taking up particulates through natural gas and liquid exchanges, which provides a healthy environment.
- ✿ **Improving quality of life** – Trees are relaxing to people by providing aesthetic beauty, recreation and the overall feeling of psychological well being. Trees make people healthier psychologically through relaxing, relieving mental fatigue and reducing aggressions, therefore helping to increase social interactions and lowering crime rates. This can have an indirect effect on the community by lowering amounts of police enforcement expenditures and better the overall appeal of the city to those outside the community.

No management plan can exist without knowledge of what resources exist. The Urban forestry office has an inventory of public and street trees, for which there are now over 10,000 recorded. Using USDA software, we were able to take the inventory and find our annual benefits gained from trees of \$692,906.89 resulting from energy reduction, CO2 reduction, air quality improvement, stormwater reduction and beautification benefits.

This valuation does not include trees in forested areas. Our department has estimated from aerial photographs that over 3000 acres of forested areas exist within the city limits on both public and private property. Benefits gained from forested areas have few costs, since they do not have to be managed. The valuation does not include trees on private property. A majority of the trees in Evansville are on private property, therefore the valuation that we gain from trees in Evansville is much greater than the estimates given above.

Without a board and department to manage the urban forestry programs, these benefits would diminish greatly. The Department of Urban Forestry and Tree Advisory board is currently working towards maintaining an inventory of public and street trees, planting the right trees in the right places, proper pruning, protection/preservation of trees/greenspace where appropriate and education of the public concerning tree care.

Evansville Tree Advisory Board

Established in 2001, the board consists of seven voluntary members, for which the duties and accomplishments are as follows:

- 🌳 Provide regular and special meetings for tree related issues.
- 🌳 Facilitate the replanting of removed trees by a 2 to 1 ratio, and in doing so, assist with the development and execution of tree-planting programs.
- 🌳 Communicate and assist other city and government offices, not-for-profits groups and citizens of the municipality concerning trees.
- 🌳 Enforce the Evansville Tree Ordinance, issue permits and govern all aspects of the City's Arborist Licensing program according to the ordinance.
- 🌳 Recommend and approve to be removed any public tree or part thereof which is in an unsafe condition or is injurious to utilities, public improvements or other trees.



Department of Urban forestry

The Evansville Department of Urban Forestry was established and began operations in 2001 under the Department of Transportation and Services. The department consists of four full time tree crew workers, and is managed by the Evansville City Arborist, whose duties are:

- 🌳 Accomplishing the day to day activities of hazard tree and tree limb removal, and removing tree debris created by storms from improved public right of ways.
- 🌳 Maintaining and updating the existing inventory of public and street trees.
- 🌳 Supervising the Arborist Licensing program, and administering fines for non-compliance.
- 🌳 Inspecting and making recommendations for public tree issues, as well as planning, performing and assisting with public tree plantings.
- 🌳 Recertifying for annual Tree City USA status and planning and supervision of annual Arbor Day event.
- 🌳 Educating the public regarding proper tree planting and care.
- 🌳 Managing the Department's fiscal budget, recommending an annual budget and applying for and administering outside grant funding.

Department of Urban Forestry - Monthly Report 2010

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Totals
Trees Removed	8	17	13	1	14	9	8		1	5	10	13	99
Individual Trees Pruned	1		48	1	14	5	13	19	23	5	5	13	147
Street Trees Pruned (feet)	5100	1150	700	200			900			800		200	9050
Boulevards Pruned (feet)									2000				2000
Alleys Pruned (per block)		1				2	12	10	5				30
Brush Cleared (feet)										1075	2150		3225
Stumps Ground				10					3			6	19
Tree Planted				29									29
Assisted other plantings				120							108	34	262
Debris Pick Up					1	4	3		2	2	2		14
# Storms w/debris		2	1	3	1	2	2	1			1	1	14
# Debris locations		2	1	3	1	3	2	1			2	1	16
Tree Pruners Fined		1							2				3
Public Seminars	1	3	2	4			1			1	3		15

Tree Planting:Removal Ratio = 2.9394

2010 Accomplishments

- ✿ Uploaded a video recording of the reading of the 2010 winning Arbor Day Essay Contest by Elyse Talley on YouTube. <http://www.youtube.com/watch?v=zX-lmit6p68>
- ✿ Assisted APC with Parking Lot Landscaping code development.
- ✿ Continued Arbor Day Ceremonies, and maintained the City's Tree City USA status for the 10th consecutive year. Received Growth Award for 7th consecutive year.
- ✿ Assisted in a cooperative effort between Keep Evansville Beautiful, Vectren and the Department of Urban Forestry with the planting of 120 trees for first official ReLeaf effort. Most of trees were planted in Glenwood Neighborhood area.
- ✿ Provided guidance for the planting of 107 trees at the latest phases of the Greenway.



Other Accomplishments since 2001

- ✿ Reduced tree topping in Evansville through public education and education of local tree companies.
- ✿ Conducted City's Arborist Licensing program and are currently providing the required Ordinance Compliance seminars for the program at no additional cost to local tree companies.
- ✿ Completed tree inventory and placed inventory on public GIS web site.
- ✿ Developed and updated Arboricultural Specifications Manual and Landscape Guidelines. Proposed guidelines to be used in contractual tree planting for new public developments.
- ✿ Developed the Urban Forestry Management Plan and Emergency Tree Debris Removal Plan.
- ✿ Maintained a positive 2 for 1 tree planting ratio since the beginning of the program
 - ✂ Tree planting/removal ratio for 2010 = 291 planted / 99 removed = 2.9 trees planted for each tree removed in 2010.
 - ✂ Tree planting/removal ratio for since 2001 = 1,548 planted / 680 removed = 2.3 trees planted for each tree removed since 2001.

Goals for 2011

- ✿ Establish consistent standards for tree maintenance and planting on state properties in Evansville through adoption of a memorandum of understanding with Indiana Department of Transportation.
- ✿ Continue cooperative coordination of annual Urban Re-Leaf Program for replacing street trees.
- ✿ Updating the current tree inventory.

Continuous Goals

- ✿ Maintaining our status as a Tree City USA community. The following requirements are needed to maintain the Tree City USA status:
 - ✿ Maintaining a minimum of \$2 per capita for the purpose of management of trees.
 - ✿ Having an active tree board, department, and arborist to manage the program.
 - ✿ Enforcing an active ordinance to help protect existing public trees.
 - ✿ Hosting an annual Arbor Day Celebration.
- ✿ Creating new programs to maintain Tree City USA Growth Award status.
- ✿ Organizing and Conducting annual Arbor Day Celebrations.
- ✿ Planting, pruning, and removing trees where needed for public safety.
- ✿ Supporting and coordinating between vital government agencies and Not-for-profit groups concerning trees.
- ✿ Developing programs and activities for public education and involvement for tree planting and care in the community.
- ✿ Administering the enforcement of the City's Tree Ordinance, commercial tree pruner's licensure, Arboricultural Specifications Manual and the Emergency Tree Debris Management Plan.
- ✿ Monitor for Emerald Ash Borer and initiate plan when it is found in Evansville.
- ✿ Continue to replace trees in public areas as they die or outgrow their space.

In addition to these programs, we are always coming up with new programs, and are always open to comments and suggestions.

City to ward off ash borer threat

City will sacrifice trees against approaching invasion

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City crews are preparing to cut down ash trees growing on public property in Evansville.

City officials have determined they either can get rid of all the ash trees on public property or wait for the emerald ash borer to do it for them.

To avoid the large cost associated with cleaning up a large number of trees at once, officials

have chosen to cut them down on their own, starting with the weakest ones first.

Shawn Dickerson, the city arborist, said officials adopted the plan about a year ago, but cleanup after the 2009 ice storm prevented them from moving on it quickly. But fearing another natural disaster, work crews soon should be cutting down most of the ashes standing in parks or lining streets, he said.

Dickerson estimated the species makes up 7 percent of all

trees on public ground in Vanderburgh County. If all of them were to die after an infestation by the emerald ash borer, the city would not have the manpower to cut them down. Faced with such a prospect, officials would have to hire the help of tree services, placing a heavy burden on local budgets.

A few ashes in public cemeteries will be saved, as well as a "state champion" tree — the largest of



Courtesy Shawn Dickerson, city arborist

Lauren Preske, director of education for Wesselman Nature Society, with a Bltmore Ash (fraxinus americana bltmore) at Wesselman Woods Nature Preserve.

ASH BORER / Page A11

ASH BORER

Continued from Page A1

its species in Indiana—in Wesselman Woods Nature Preserve.

"It will be no more than 10 or 20 trees," Dickerson said.

Dickerson said ash trees can be protected by injecting them with chemicals, a procedure that must be done as often as once a year to be effective. The need for such regular treatment makes the measure unaffordable on a mass scale, he said.

Larry Caplan, a horticulture educator for the local Purdue University Extension Office, said the chemicals—Bayer Advanced Tree and Shrub Insect Control—can be purchased at most hardware stores and garden centers. A bottle for a small to medium tree costs about \$25 to \$30; treating larger trees would cost more.

Caplan suggested hiring a professional to inject the chemicals, which likely would increase the price tag.

Dickerson said officials' plans concern only trees on public ground. Owners of private property must decide what they want to do with the trees on their land, he said.

Planning ahead





The city's plan was adopted about a year ago after officials saw the emerald ash borer making its way into Southern Indiana. The pest has been found near Dubois County, about 75 miles from Evansville.

The chances of sparing local trees from the emerald ash borer's destructive effects are slim to nonexistent, Dickerson said.

"It will kill all of our ash trees," he said.

Caplan predicted the emerald ash borer will be found in Vanderburgh County or nearby counties this year, despite prohibitions on transporting lumber and firewood meant to hold the insect population to the two miles a year it is able to travel naturally.

The emerald ash borer

-  State quarantine, generally infested area
-  State quarantine
-  Emerald ash borer positive
-  Site under evaluation (found in firewood)



What do emerald ash borers look like?

The emerald ash borer is a beetle, dark metallic green in color, 1/2 inch long and 1/8 inch wide.

How do infestations spread?

Emerald ash borer larvae can easily hitchhike a ride to new areas under the bark of infested firewood. On its own, the emerald ash borer moves slowly through the landscape, only about half of a mile per year.



Approximate size



From where did the emerald ash borer come?

The natural range of the emerald ash borer is eastern Russia, northern China, Japan and Korea. Before June 2002, it had not been found in North America. The emerald ash borer probably arrived in the Detroit area on solid-wood packing material carried in cargo ships or airplanes from Asia.

What kind of tree does the emerald ash borer attack?

In North America, it has been found in only ash trees.

What happens to infested ash trees?

The canopy of infested trees begins to thin above infested portions of the trunk and major branches because the borer destroys the water and nutrient-conducting tissues under the bark. Heavily infested trees exhibit canopy die-back usually starting at the top of the tree. One-third to one-half of the branches may die in one year. Most of the canopy will be dead within 2 years. Sometimes ash trees push out sprouts from the trunk after the upper portions of the tree die. Although difficult to see, the adult ash borers leave a "D"-shaped exit hole in the bark, roughly 1/8 inch in diameter, when they emerge in June.

Who do I call to get more information on the emerald ash borer or to report an infested tree?

Contact your county extension office or the nearest Department of Agriculture office. In Vanderburgh County, the Purdue Extension office phone number is (812) 435-5287. You also may call the USDA emerald ash borer hotline at (866) 322-4512.

SOURCE: Purdue Extension Service

LARRY FINK / Courier & Press

SIGNS OF TROUBLE

Symptoms of an infestation by the emerald ash borer include:

- Dying branches at the top of healthy ash trees. One-third of the tree can die in the first season.
- Sprouts or suckers begin to appear at the base of the tree and lower trunk.
- Small D-shaped exit holes appear.

- S-shaped tunnels under the bark.
- Vertical splits in the bark.
- Increased woodpecker activity.

For more information on infestations, call Larry Caplan, an extension educator-horticulture with the Purdue University Cooperative Extension Service, at (812) 435-5287 or e-mail him at LCaplan@purdue.edu. Caplan asked that people not call him unless at least three of the symptoms are present.

Caplan said too many people ignore the quarantines and continue to move the contraband materials. Vanderburgh County is prone to infestation because of the many highways that bring goods to it from other parts of the country.

"It's a matter of when, not if," Caplan said.

Caplan said the emerald ash borer is different from other types of boring insects in that it attacks healthy trees. It

does its damage by getting under the bark and burrowing through an ash's sap wood, which eventually cuts off the supply of water to leaves and other topmost parts.

Short survival

Once infested, a tree is lucky to survive three years, Caplan said. No species of ash found in North America appears to have developed a genetic resistance to the borer, he said.

The irony is that many homeowners planted ashes because they ranked among the species least prone to disease. Now those people will have to decide if they can afford the chemical treatments needed to save the same trees.

"You have to balance that with: What is the value of this tree?" Caplan said. "How much beauty are you getting, and how much shade are you getting?"

Tree lesson a down payment on beautiful city

11/21/10

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When someone is looking to plant a young tree that has been "balled and burlapped" — or dug out of the ground so that its root system holds the soil together in a ball at its base, which is then wrapped in burlap — the worst thing to do is to force it into a deep, narrow hole in the ground.

When the tree's roots begin to grow, they quickly will push through the loose soil directly next to the trunk but are likely to halt when they run up against compact soil that has not been displaced, said Larry Caplan, an educator with the Purdue University Cooperative Extension Service in Vanderburgh County and Southwestern Indiana.

Caplan told an audience gathered at Line Street Church of Christ on Saturday morning that the resistance put up by denser soil can cause roots to turn back on themselves and girdle their own trunk, an event that can prove fatal to a tree.

Caplan joined Shawn Dickerson, the Evansville city arborist, to offer advice to residents living in neighborhoods just south of Downtown. The audience was assembled through the work of Keep Evansville Beautiful, a nonprofit organization that works to improve the quality of life in the city.

J. Michael McGarrah, a program coordinator with Keep Evansville Beautiful, said everyone who attended the event Saturday received a voucher to claim a free tree in the spring. The trees, he said, are donations from Vectren Corp. and will be selected to suit the conditions of recipients' yards.

"We want them to realize you can do this; it's not that hard," McGarrah said. "This is how to do it right, and tell your friends and neighbors about it."

McGarrah said Keep Evansville Beautiful plans to hold at least two more sessions on the same topic, but likely at different locations. Sharon Williams of Evansville said she has planted Bradford pear and birch trees but found it difficult to get them to grow. The speakers gave her an indication of why success has been so elusive, she said.

Outside of the church, Dickerson demonstrated the best way to



DAN SHAW / Courier & Press

Evansville arborist Shawn Dickerson digs a hole in which he planted a flowering crab apple tree on Saturday. Dickerson demonstrated good planting practices as part of a Keep Evansville Beautiful seminar meant to encourage homeowners to plant trees on their own properties.

plant a crab apple tree. He dug a hole about 3 feet in diameter and with sloped sides.

He then set the young tree in the middle of the saucer-shaped indentation. Before shoveling the soil back in, he cut the wire holding the tree's root ball in place and removed as much of the burlap packing as he could.

Caplan said planters should avoid refilling such holes with peat moss or other substances rich in nutrients. Doing so will cause the roots to grow densely near the base and not spread out as they should.

If a planting site lacks nutrients, Caplan suggested tilling a wide area and mix peat moss into the

soil. That will give roots a reason to reach out from the trunk, he said.

The tilled area can then be covered over with mulch and filled in with shrubs, flowers or other trees to make a plant bed. As an added benefit, the homeowner will save himself the trouble of having to mow around a clump of obstacles, Caplan said.

EVANSVILLE

City gets Tree City U.S.A. designation for 10th year

Evansville has been recognized for its high standard of tree care and improving the environment. For the 10th year in a row, it has achieved the Tree City U.S.A. designation, and for the sixth year in a row has been honored with the Tree City U.S.A. Growth Award.

"It is a great thing for our community to be recognized year after year for the efforts being made by City Arborist Shawn Dickerson and his staff at Urban Forestry to preserve and improve the inventory of trees in Evansville through proper planning and selection," said Mayor Jonathan Weinzapfel.

The program, sponsored by the Arbor Day Foundation in cooperation with the USDA Forest Service and the National Association of State Foresters, provides direction, technical assistance, public attention and recognition for urban and community forestry programs.

There are four standards to be named a Tree City: maintaining a minimum of \$2 per capita for the purpose of tree management; an active tree board, department and arborist to manage the program; enforcing an active ordinance to help protect existing public trees; and hosting an annual Arbor Day Celebration.

— *Tom Lovett*